



SECRETARY OF THE ARMY  
WASHINGTON

03 JAN 2017

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

1. Reference Department of the Army, Human Capital Big Data Strategy: Optimizing Decision Making, November 2016.

2. Purpose. This directive implements the Army's Human Capital Big Data (HCBD) Strategy. The HCBD Strategy defines an overarching human data use policy and expands an existing technology—Person-event Data Environment (PDE)—as an enterprise platform for integrating data across the human capital enterprise. The PDE is an environment which links people, data and tools for problem-solving and ensures human subject protection regulations and privacy rules are followed and auditable. The HCBD Strategy supports senior Army leaders with descriptive analysis, policy evaluation, and research, including predictive modeling. Implementation of the strategy will accelerate the sharing of all Army data and support increased readiness as data is more readily available to support decision-making. Expanding the Army's ability to conduct research and analysis on its vast amount of human capital data is an important undertaking. The sensitive nature of this effort deserves scrutiny and review at the highest levels of Army leadership.

3. This directive establishes the Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA (M&RA)) as the proponent for implementing and providing resources for this policy and for overseeing Armywide capability, policy, governance, standards, and infrastructure to ensure that all Army organizations share human capital data with the PDE in a manner that secures data, protects privacy, and operates legally and ethically. Nothing in this directive will be construed as preventing or discouraging existing or future analytical capabilities or data sharing agreements between Army organizations or with Department of Defense (DoD) or non-Defense organizations. This directive does not remove analytical capabilities and data authorities from commands, nor does it prevent organizations from conducting research or analysis outside of the PDE when performed in accordance with existing policies and regulations. The enclosure provides additional detail pertaining to the operations of the PDE and implementation of HCBD.

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

#### 4. Policy

a. Army HCBD are enterprise assets that require ethical, effective, and efficient information sharing necessary to support descriptive analysis, policy evaluation, and research, including predictive modeling by Army organizations that use HCBD.

b. The Army HCBD framework must comply with established Army Data Strategy principles: Visible, Accessible, Understandable, Trusted, and Interoperable.

c. Human capital data is a unique subset within the Army Data Strategy, requiring an ethical and legal framework that safeguards person-level data and operates in accordance with the fundamental principles identified in the Army's HCBD Strategy: Transparency, Privacy, Do No Harm, Validity and Verification, and Security.

d. Appropriate safeguards will exist to prevent any unauthorized access to, use, or release of HCBD. The ASA (M&RA) is the designated authority to address issues that may arise through the sharing, integration, use, and release of data, including serving as the final reviewer of all projects that result from the shared HCBD architecture. This responsibility is important to ensure the proper and ethical interpretation of analyses and research findings. The ASA (M&RA)'s governance will, to the extent possible, leverage existing processes without adding cumbersome bureaucracy.

#### 5. Implementation

a. The Deputy Under Secretary of the Army (DUSA) will:

(1) exercise authority, direction, and control over the Army Analytics Group (AAG), including the operation and administration of the AAG. These responsibilities encompass establishing and approving policies, plans, activities, priorities, projects, and partnerships with Federally Funded Research and Development Centers, and other Federal and non-Federal agencies; approving equipment needed to maintain capabilities; and acting to incur the lowest costs and highest performance.

(2) ensure effective and efficient operation of the PDE, which provides analytical service and facilities research and analysis for the Army's senior leadership and innovative application and massive data integration across the enterprise. The DUSA will provide sufficient resources for the AAG's baseline requirements sufficient to ensure sustainment of the PDE in collaboration with stakeholder organizations.

(3) ensure that the AAG complies with Army Regulation (AR) 25-1 (Army Information Technology). The regulation outlines a comprehensive data quality

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

management process that all Army organizations producing or maintaining data must follow. Organizations that produce or store Army data will ensure that they adopt and apply the policies and procedures of the data quality management process to the Army data assets under their control.

b. The ASA (M&RA) will:

(1) provide support and strategic direction to this effort to validate the outcomes described in paragraphs 2 and 3. The ASA (M&RA) will work in conjunction with the Office of the DUSA; Office of the Chief Information Officer/G-6 (CIO/G-6); Office of the Army Deputy Chief of Staff (DCS), G-1; Office of Business Transformation; and other Headquarters, Department of the Army staff elements.

(2) develop and implement the Army's Human Capital Data Management program and Program Objective Memorandum funding for the PDE.

(3) identify Army data sources that will share human capital data with the PDE in creating the HCBBD data enclave. The ASA (M&RA) will make sure any necessary data use agreements are in place for data stored in the PDE.

(4) establish an HCBBD Working Group to serve in an advisory capacity to facilitate implementation of the HCBBD Strategy. The working group members will include, at a minimum, subject matter experts from the Offices of the ASA (Acquisition, Logistics and Technology); ASA (M&RA); General Counsel; DUSA; CIO/G-6; DCS, G-1; DCS, G-2; DCS, G-3/5/7; The Surgeon General; Business Transformation; The Judge Advocate General; and Provost Marshal General; Center for Army Profession and Ethic; Office of Economic and Manpower Analysis; AAG; and U.S. Army Research Institute.

(5) serve as the final arbiter across the Army enterprise to determine whether any given data is part of the HCBBD residing in the PDE; the level of access to the data (open, restricted, closed); the frequency of update; whether any portion of HCBBD may be exported outside the PDE; or any other point of disagreement that the existing AAG PDE support processes have been unable to resolve regarding the assemblage, storage, use, or dissemination of HCBBD. When required by a data use agreement, dissemination of findings through research and analyses of HCBBD will include the data source(s) and ASA (M&RA) in the established publication or release process. Compromise and inappropriate use or release of HCBBD or findings is a recognized and inherent ethical and legal risk to the security of Army personnel and to the Army as a trusted profession and department of the Government. The ASA (M&RA) is responsible for guarding against and preventing any unauthorized use or release of HCBBD. Accordingly, the ASA (M&RA) will maintain overall authority for access to and use of

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

HCBD and will adjudicate disagreements about the publication or release of data findings.

(6) make certain, in conjunction with the DUSA, that the AAG complies with AR 25-1 and highlights data quality improvement priorities across the HCBD data enclave. Importantly, data quality improvement will be managed and executed by Army data-producing organizations according to the data quality management process outlined in AR 25-1.

c. The AAG will:

(1) complete a PDE HCBD Implementation Plan within 180 days from the date of this directive and provide the ASA (M&RA) with interim progress reports every 30 days until complete.

(2) manage the PDE to contain the enterprise HCBD data enclave. The PDE will facilitate HCBD data sharing by receiving Army human capital data, and the AAG authorize access to HCBD and the analytical tools directly on PDE servers. Additionally, while use of HCBD within the PDE-maintained HCBD data enclave is preferred, the AAG may transfer HCBD, both identified and de-identified, from the PDE to the servers of other DoD organizations consistent with CIO-G-6 data policies and applicable privacy laws and policies. The ASA (M&RA) will adjudicate disagreements regarding requests for HCBD data use inside or outside the PDE.

(3) ensure that the PDE supports timely decision-making, descriptive analysis, policy evaluation, and research, including predictive modeling by Army organizations that use HCBD; supports the Army's work with Federally Funded Research and Development Centers; complements Integrated Personnel and Pay System-Army capabilities; and serves as a data backup and recovery location for Army organizations that share HCBD with the PDE.

(4) offer organizations subject matter expertise in the areas of research science, data consultation, and data analysis. Depending on the scope of work, the supported organization may be required to reimburse costs associated with this type of support. Additional HCBD details and AAG responsibilities are in the enclosure.

(5) establish transfer agreements with HCBD data producers that document the process for, frequency of, and inclusion criteria of data transfers. Both HCBD data producers and the AAG will use these agreements to inform out-year planning, programming, budgeting, and execution cycles.

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

(6) maintain and execute a Human Research Protections Program and associated Assurance for the Protection of Human Research Subjects in accordance with Federal, DoD, and Army Human Research Protections Office guidelines.

(7) maintain and execute a PDE HCBD data governance plan in accordance with CIO/G-6 guidelines. The plan will include policies for the ethical and legal use of HCBD, including data safeguards and protection, security, storage, use, and access.

6. Datasets. Army organizations that share HCBD data with the PDE will categorize each shared dataset as open, restricted, or closed. The AAG has authority to grant other Army and DoD organizations and individuals access to open HCBD datasets. The AAG will make the documentation of restricted HCBD datasets, such as a description of the dataset and a list of the dataset's variables and variable values (data dictionary), available to all PDE users, but will only permit the use of restricted or closed HCBD datasets by users who receive permission from the HCBD data source for specific purposes. The AAG will neither publish nor permit use of restricted or closed datasets without the explicit permission of the HCBD data source. The ASA (M&RA) maintains final authority on whether any HCBD remains restricted or closed.

7. Management of Other Data. The AAG will continue to manage data that is not considered HCBD in the PDE, such as Case Adjudicative Tracking System and Joint Personnel Adjudication System data, in accordance with existing regulations. This directive applies only to HCBD and does not affect roles or responsibilities of the ASA (M&RA), the AAG, or any other organization as they relate to data other than HCBD.

8. Applicability. The provisions of this directive apply to the Active Army, Army National Guard/Army National Guard of the United States, and U.S. Army Reserve. It does not apply to pre-accessions data from commissioning sources. It is effective immediately and will be reviewed as necessary or until policies are adopted into regulations. It will be supported by appropriate regulatory guidance, updates to procedures, and all specified and implied tasks necessary to achieve its stated intent.



Eric K. Fanning

Encl

DISTRIBUTION:

Principal Officials of Headquarters, Department of the Army  
(CONT)

SUBJECT: Army Directive 2017-04 (Implementation of the Army Human Capital Big Data Strategy)

DISTRIBUTION: (CONT)

Commander

- U.S. Army Forces Command
- U.S. Army Training and Doctrine Command
- U.S. Army Materiel Command
- U.S. Army Pacific
- U.S. Army Europe
- U.S. Army Central
- U.S. Army North
- U.S. Army South
- U.S. Army Africa/Southern European Task Force
- U.S. Army Special Operations Command
- Military Surface Deployment and Distribution Command
- U.S. Army Space and Missile Defense Command/Army Strategic Command
- U.S. Army Cyber Command
- U.S. Army Medical Command
- U.S. Army Intelligence and Security Command
- U.S. Army Criminal Investigation Command
- U.S. Army Corps of Engineers
- U.S. Army Military District of Washington
- U.S. Army Test and Evaluation Command
- U.S. Army Installation Management Command
- Second Army

- Superintendent, United States Military Academy
- Director, U.S. Army Acquisition Support Center
- Executive Director, Arlington National Cemetery
- Commandant, U.S. Army War College
- Commander, U.S. Army Accessions Support Brigade

CF:

- Director, Army National Guard
- Director of Business Transformation
- Commander, Eighth Army

## **HUMAN CAPITAL BIG DATA ADDITIONAL DETAILS AND RESPONSIBILITIES FOR THE ARMY ANALYTICS GROUP**

Within the Human Capital Big Data (HCBD) environment, several existing Department of Defense (DoD) and Army analytic data organizations currently analyze data from multiple sources in a controlled, secure setting. For example, the Defense Manpower Data Center collects and maintains manpower, personnel, training, and other databases to support DoD and Army information requirements to facilitate research and analysis. Since its inception in 1983, the Office of Economic and Manpower Analysis has served as an analytic data organization that draws from multiple data sources to support senior Army leaders with descriptive statistics, policy analysis, and academic research. In addition, the Plans-Resources-Strength office in the Office of the Army Deputy Chief of Staff, G-1 combines data from the Total Army Personnel Database and other sources to inform personnel and manpower decision-making for the Deputy Chief of Staff, G-1.

These and other analytic data organizations perform specific missions that require the colocation of data, data managers, and research analysts; they will continue to operate as currently designed. All Army organizations producing or maintaining HCBD enterprise data will also continue to operate as currently designed, but will share data with the Person-event Data Environment (PDE). Other organizations require the ability to analyze data from multiple sources, but do not have the ability to readily collect and secure data from disparate data producers for all projects. The U.S. Army Research Institute and the research labs within the Army Analytics Group (AAG) and Army Marketing Research Group are examples of such organizations. To address this capability gap, the AAG will manage the HCBD data enclave with the PDE as an enterprise platform for integrating data from Army data producers to support HCBD analysis across the enterprise.

The PDE provides the capability for organizations to analyze PDE data via remote access and to do analysis on PDE servers for approved purposes. This form of server-side computing does not typically allow authorized users to remove data from PDE servers. DoD organizations that safeguard human capital data in accordance with guidance from the Chief Information Officer/G-6 may request that AAG transfer HCBD data from PDE servers to their organization's servers as long as the data sharing complies with applicable privacy laws and policies and is not prohibited by regulation or statute. The Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA (M&RA)) will adjudicate any disagreements over the transfer of HCBD data from the PDE to other DoD organizations. Non-DoD organizations that use PDE-maintained HCBD data will perform all analyses on PDE servers unless the ASA (M&RA) grants and exception.

The AAG is responsible for the master data management of the PDE, including operating policies, procedures, data quality standards, safeguards, data use

Enclosure

authorizations, and all guidance necessary to support the ethical, effective, and efficient collection and application of HCBD data in the PDE. This responsibility includes plans to capture and record specific data source details, including source data metadata. Additionally, the AAG will manage total costs for critical processes and develop appropriate activity-based costing mechanisms to complete specific data projects. Within 6 months of the date of this directive, the AAG will provide an execution plan with milestones and metrics to the ASA (M&RA). In this plan, the AAG will:

- include a specific PDE data management plan;
- define authorized users' roles and responsibilities;
- establish a price schedule for users who access data on PDE servers;
- explain how it will review project proposals that request data from open or restricted datasets, permit access to data for approved projects only, and review project findings before the publication or dissemination of results; and
- provide an estimated price schedule for levels of support that are outside the service level agreements based on Program Objective Memorandum funding AAG may charge Army organizations.